QUIZ 2

COMP9021 PRINCIPLES OF PROGRAMMING

Sample outputs

```
$ python quiz_2.py
Enter three nonnegative integers: 0 0 0

I failed to generate one strictly positive number, giving up.
$ python3 quiz_2.py
Enter three nonnegative integers: 0 1 1

The generated list is:
    [1]

The fractions no greater than 1 that can be built from L, from smallest to largest, are:
    1
The fraction closest to 1/2 is 1
$ python3 quiz_2.py
Enter three nonnegative integers: 0 3 1

The generated list is:
    [1, 1, 0]

The fractions no greater than 1 that can be built from L, from smallest to largest, are:
    0   1
0 and 1 are both closest to 1/2
$ python3 quiz_2.py
Enter three nonnegative integers: 0 3 12

The generated list is:
    [6, 12, 6]

The fractions no greater than 1 that can be built from L, from smallest to largest, are:
    1/2   1
One of these fractions is 1/2
$ python3 quiz_2.py
Enter three nonnegative integers: 0 3 20

The generated list is:
    [12, 13, 1]

The fractions no greater than 1 that can be built from L, from smallest to largest, are:
    1/13   1/12   12/13   1
The fraction closest to 1/2 is 1/12
```

```
$ python3 quiz_2.py
Enter three nonnegative integers: 1 4 30

The generated list is:
   [4, 18, 27, 25]

The fractions no greater than 1 that can be built from L, from smallest to largest, are:
   4/27  4/25  2/9  2/3  18/25  25/27  1
The fraction closest to 1/2 is 2/3
$ python quiz_2.py
Enter three nonnegative integers: 12 3 5

The generated list is:
   [3, 2, 5]

The fractions no greater than 1 that can be built from L, from smallest to largest, are:
   2/5  3/5  2/3  1
2/5 and 3/5 are both closest to 1/2
$ python quiz_2.py
Enter three nonnegative integers: 0 3 100

The generated list is:
   [49, 97, 53]

The fractions no greater than 1 that can be built from L, from smallest to largest, are:
   49/97  53/97  49/53  1
The fraction closest to 1/2 is 49/97
$ python quiz_2.py
Enter three nonnegative integers: 0 5 30

The generated list is:
   [27, 12, 24, 28, 13]

The fractions no greater than 1 that can be built from L, from smallest to largest, are:
   3/7  4/9  13/28  13/27  1/2  13/24  6/7  8/9  12/13  27/28  1
One of these fractions is 1/2
$ python quiz_2.py
Enter three nonnegative integers: 0 4 40

The generated list is:
   [24, 26, 2, 16]

The fractions no greater than 1 that can be built from L, from smallest to largest, are:
   1/13  1/12  1/8  8/13  2/3  12/13  1
The fraction closest to 1/2 is 8/13
```